

Vibration Tester

Quickly understand machine health and condition severity

This precision vibration tester is designed to quickly analyze motors, fans and blowers, belts and chain drives, gearboxes, pumps, compressors, spindles, and more. The intuitive interface makes set up and operation easy. Simply enter basic machine information like rpm and horsepower, and the on-board info feature provides field tips for setting up and taking measurements. Unit then detects and displays the root causes and locations of mechanical failures and provides immediate fault severity assessment and repair recommendations. The included software allows you to generate diagnostic reports, create machine setups from your PC and transfer data to the tester, view diagnosis and vibration spectra, and import and store JPEG images and Fluke IS2 thermal images for a complete view of your machine's condition.

- On-board identification and location of mechanical faults (bearings, misalignment, unbalance, looseness)
- Focuses maintenance efforts on root cause, reducing unplanned downtime
- Fault severity scale with four severity levels help prioritize maintenance work
- Repair recommendations advise technicians on corrective action
- On-board context sensitive help provides real-time tips and guidance to new users
- 2GB expandable on-board memory provides expanded space for machinery's data
- Included laser tachometer for accurate machine running speed ensures diagnoses
- Tri-axial accelerometer reduces measurement time by $\frac{2}{3}$ over single axis accelerometers
- Included viewer PC software expands data storage and tracking capacity



Quickly and accurately assess condition of machinery.

| SPECIFICATIONS | |
|---|--|
| Frequency range | 5 Hz to 20 kHz |
| Sampling rate | 2.56 kHz to 51.2 kHz |
| Dynamic range | 128 dB |
| Signal to noise ratio | 100 dB |
| FFT resolution | 800 lines |
| Spectral windows | Hanning |
| Frequency units | Hz, orders, cpm |
| Amplitude units | in/s, mm/s, VdB (US), VdB (Europe) |
| A/D converter | 4-channel, 24-bit |
| Digital signal processing functions | Automatically configured anti-alias filter, high-pass filter, decimation, overlapping, windowing, FFT, and averaging |
| Agency approvals | China RoHS, CSA, CE, C TICK, WEEE |
| Dimensions (W x H x D) | 10½" x 7½" x 2¾" (267 x 185.6 x 70 mm) |
| Power | Lithium-ion battery, 14.8 V, 2.55 Ah, or 100 to 240 VAC; 50/60 Hz |
| Accelerometer specifications | |
| Acceleration range | 80 g peak |
| Sensitivity | 100 mV/g ($\pm 5\%$, 25°C) |
| Amplitude nonlinearity | 1% |
| Frequency response | Z = 2 to 7000 Hz ± 3 dB X, Y = 2 to 5000 Hz ± 3 dB |
| Power requirement (IEPE) | 18 to 30 VDC, 2 mA to 10 mA |
| Bias output voltage | 12 VDC |
| Sensing element design | PZT ceramic / shear |
| Case material | 316L stainless steel |
| Mounting | 10-32 captive socket head screw, 2-pole rare earth magnet (48 lb. pull strength) |
| Output connector | 4-pin, M12 |
| Mating connector | M12 - F4D |
| Non-volatile memory | TEDS 1451.4 compatible |
| Vibration limit | 500 g peak |
| Shock limit | 5000 g peak |
| Electromagnetic sensitivity, equivalent g | 100 μ g / gauss |
| Sealing | Hermetic |
| Tachometer specifications | |
| Range | 6.0 to 99,999 rpm (laser diode class 2) |
| Resolution | 0.1 rpm |
| Accuracy | 6.0 to 5999.9 rpm: $\pm 0.01\%$ and ± 1 digit 5999.9 to 99,999 rpm: $\pm 0.05\%$ and ± 1 digit |



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What's included: Laser tachometer and storage pouch, tri-axial TEDS accelerometer, accelerometer magnet mount, accelerometer mounting pad kit with adhesive, shoulder strap and adjustable hand strap, getting started guide, illustrated quick reference guide, viewer PC software, users manual CD-ROM, accelerometer quick-disconnect cable, mini USB to USB cable, carrying case, and smart battery pack with cable and adapters.

| Catalog No. | Model No. | Description |
|-------------|-----------|---|
| TS-65710-25 | 810 | Vibration tester |
| Accessories | | |
| TS-65710-26 | 810PA | Replacement AC adapter with international plugs |
| TS-65710-27 | SBP810 | Replacement lithium-ion battery |
| TS-17111-66 | — | NIST-traceable calibration with data |